

Please amend the claims as follows:

[Please add the following claims:]

- - 65. An apparatus for transmitting digital signals over a telephone landline or a wireless telephone system and for transmitting analog signals over the telephone landline or the wireless telephone system, comprising:
- a modem;
  - a telephone line interface;
  - a microcontroller;
  - a memory operatively connected to said microcontroller;
  - protocol software in said memory for controlling the operation of the apparatus;
  - a wireless telephone interface for operatively connecting to a wireless telephone;
  - means for providing analog communications for transmitting over the telephone landline or the wireless telephone system;
  - a first analog switch operatively connecting a first terminal either to said means for providing analog communications or to said modem as decided by the microcontroller;
  - a second analog switch operatively connecting said telephone line interface and said wireless telephone interface or not as decided by the microcontroller; and
  - a third analog switch operatively connecting the first terminal of the first analog switch with said telephone line interface or not as decided by the microcontroller.
66. The apparatus of claim 65 wherein said protocol software includes means for retrying the connection phase for a predetermined number of tries.
67. The apparatus of claim 66 wherein said protocol software includes means for retransmitting data packets, after successful connection phase, for a predetermined number of tries.
68. The apparatus of claim 67 wherein said protocol software includes means to suspend

transmission to wait for the recovery of loss of carrier.

69. The apparatus of claim 68 wherein said protocol software includes means to switch the mode of operation of said modem from synchronous to asynchronous if carrier loss occurs during transmission in the synchronous mode of operation and to switch back to the synchronous mode upon recovery of the carrier.

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70. An apparatus for transmitting digital signals over a telephone landline, a wireless radio frequency network or a wireless telephone system and for transmitting analog signals over the telephone landline, the wireless radio frequency network or a wireless telephone system, comprising:
- a modem;
  - a telephone line interface;
  - a microcontroller operatively connected to said modem;
  - a memory operatively connected to said microcontroller;
  - protocol software in said memory for controlling the operation of the apparatus;
  - a wireless telephone interface for operatively connecting to a wireless telephone;
  - a radio frequency interface for connecting to a radio frequency transceiver unit;
  - means for providing analog communication;
  - a first analog switch operatively connecting a first terminal either to said means for providing analog communications or to said modem as decided by the microcontroller;
  - a second analog switch operatively connecting said telephone line interface and said wireless telephone interface or not as decided by the microcontroller; and
  - a third analog switch operatively connecting the first terminal of the first analog switch with either said telephone line interface or said radio frequency interface as decided by the microcontroller.

71. The apparatus of claim 70 wherein said protocol software includes means for retrying the connection phase for a said number of tries.

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72. The apparatus of claim 71 wherein said protocol software includes means for retransmitting data packets, after successful connection phase, for a said number of tries.
73. The apparatus of claim 72 wherein said protocol software includes means to suspend transmission to wait for the recovery of loss of carrier.
74. The apparatus of claim 73 wherein said protocol software includes means to switch the mode of operation of said modem from synchronous to asynchronous if carrier loss occurs during transmission in the synchronous mode of operation and to switch back to the synchronous mode upon recovery of the carrier.
75. An apparatus for transmitting digital signals over an ordinary telephone line service, a radio frequency or a wireless telephone system and for transmitting analog signals over the telephone line service, the radio frequency or the wireless telephone system, comprising:  
a modem;  
a telephone line interface operatively connected to said modem;  
a microcontroller operatively connected to said modem;  
a memory operatively connected to said microcontroller;  
protocol software in said memory for controlling the operation of the apparatus;  
a wireless telephone interface for connecting to a wireless telephone unit;  
radio frequency interface for connecting to radio frequency telemetry modules or packet radios;  
means for providing analog communication;  
a first analog switch operatively connecting a first terminal either to said means for providing analog communications or to said modem as decided by the microcontroller;  
a second analog switch operatively connecting said telephone line interface and said wireless telephone interface or not as decided by the microcontroller;  
a third analog switch operatively connecting the first terminal of the first analog

switch either to said telephone line interface or to said radio frequency interface as decided by the microcontroller; and  
a fourth analog switch operatively connecting a remote device to said telephone line interface or not as decided by the microcontroller.

76. The apparatus of claim 75 wherein said protocol software includes means for retrying the connection phase for a predetermined number of tries over a wireless telephone system, radio frequency network or a telephone line service.
77. The apparatus of claim 76 wherein said protocol software includes means for retransmitting data packets, after successful connection phase, for a predetermined number of tries over a wireless telephone system, radio frequency network or a telephone line service.
78. The apparatus of claim 77 wherein said protocol software includes means to suspend transmission from the apparatus to wait for the recovery of loss of carrier over a wireless telephone system, radio frequency network or a telephone line service.
79. The apparatus of claim 78 wherein said protocol software includes means to switch the mode of operation of said apparatus from synchronous to asynchronous if carrier loss occurs during transmission in the synchronous mode of operation and to switch back to the synchronous mode upon recovery of the carrier over a wireless telephone system, radio frequency network or a telephone line service.
80. An apparatus for transmitting standard digital signals or fax digital signals an over ordinary telephone line service, a radio frequency network, a satellite system or a wireless telephone system and for transmitting analog signals over the telephone line service, the radio frequency network, the satellite system and the wireless telephone system, comprising:  
a modem;  
a telephone line interface;

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a microcontroller operatively connected to said modem;  
a read-only memory operatively connected to said microcontroller;  
protocol software in said read-only memory in the form of firmware for controlling  
the operation of the apparatus;  
a wireless telephone interface for connecting said microcontroller to a wireless  
telephone unit;  
a radio frequency interface for connecting said microcontroller to a radio frequency  
telemetry module or packet radio unit;  
means for providing analog communication over the telephone line, the wireless  
radio frequency network, the satellite system or the wireless telephone  
system;  
a first analog switch operatively connecting a first terminal either to said means for  
providing analog communications or to said modem as decided by the  
microcontroller;  
a second analog switch operatively connecting said telephone line interface and said  
wireless telephone interface or not as decided by the microcontroller;  
a third analog switch operatively connecting the first terminal of the first analog  
switch either to said telephone line interface or to said radio frequency  
interface as decided by the microcontroller; and  
a fourth analog switch operatively connecting said satellite system to said telephone  
line interface or not as decided by the microcontroller.

81. The apparatus of claim 80 wherein said protocol software includes means for  
retrying the connection phase for a predetermined number of tries over a wireless  
telephone system, radio frequency network, satellite system or a telephone line  
service.
82. The apparatus of claim 81 wherein said protocol software includes means for  
retransmitting data packets, after successful connection phase, for a predetermined  
number of tries over a wireless telephone system, radio frequency network, satellite  
system or a telephone line service.

83. The apparatus of claim 82 wherein said protocol software includes means to suspend transmission from the apparatus to wait for the recovery of loss of carrier over a wireless telephone system, radio frequency network, satellite system or a telephone line service.
84. The apparatus of claim 83 wherein said protocol software includes means to switch the mode of operation of said apparatus from synchronous to asynchronous if carrier loss occurs during transmission in the synchronous mode of operation and to switch back to the synchronous mode upon recovery of the carrier over a wireless telephone system, radio frequency network, satellite system or a telephone line service.
85. An apparatus for transmitting digital signals over a telephone landline or a wireless telephone system and for transmitting analog signals over the telephone landline or the wireless telephone system, comprising:  
a modem;  
a telephone line interface;  
a wireless telephone interface for operatively connecting to a wireless telephone;  
means for providing analog communications for transmitting over the telephone landline or the wireless telephone system;  
a first analog switch operatively connecting a first terminal to either said means for providing analog communications or said modem;  
a second analog switch selectively operatively connecting said telephone line interface and said wireless telephone interface; and  
a third analog switch selectively operatively connecting the first terminal of the first analog switch with said telephone line interface.
86. An apparatus for transmitting digital signals over a telephone landline, a wireless radio frequency network or a wireless telephone system and for transmitting analog signals over the telephone landline, the wireless radio frequency network or a wireless telephone system, comprising:

a modem;  
a telephone line interface;  
a wireless telephone interface for operatively connecting to a wireless telephone;  
a radio frequency interface for connecting to a radio frequency transceiver unit;  
means for providing analog communication;  
a first analog switch operatively connecting a first terminal either to said means for providing analog communications or to said modem;  
a second analog switch for selectively operatively connecting said telephone line interface and said wireless telephone interface; and  
a third analog switch operatively connecting the first terminal of the first analog switch either to said telephone line interface or to said radio frequency interface.

87. An apparatus for transmitting digital signals over an ordinary telephone line service, a radio frequency or a wireless telephone system and for transmitting analog signals over the telephone line service, the radio frequency or the wireless telephone system, comprising:

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a modem;  
a telephone line interface operatively connected to said modem;  
a wireless telephone interface for connecting to a wireless telephone unit;  
radio frequency interface for connecting to radio frequency telemetry modules or packet radios;  
means for providing analog communication;  
a first analog switch operatively connecting a first terminal either to said means for providing analog communications or to said modem;  
a second analog switch for selectively operatively connecting said telephone line interface and said wireless telephone interface;  
a third analog switch operatively connecting the first terminal of the first analog switch either to said telephone line interface or to said radio frequency interface; and  
a fourth analog switch for selectively operatively connecting a remote device to said

telephone line interface.

88. An apparatus for transmitting standard digital signals or fax digital signals over ordinary telephone line service, radio frequency network, satellite system or a wireless telephone system and for transmitting analog signals over the telephone line service, the radio frequency network, the satellite system and the wireless telephone system, comprising:
- a modem;
  - a telephone line interface operatively connected to said modem;
  - a wireless telephone interface for connecting to a wireless telephone unit;
  - a radio frequency interface for connecting to a radio frequency telemetry module or packet radio unit;
  - means for providing analog communication over the telephone line, the wireless radio frequency network, the satellite system or the wireless telephone system;
  - a first analog switch operatively connecting a first terminal either to said means for providing analog communications or to said modem;
  - a second analog switch for selectively operatively connecting said telephone line interface and said wireless telephone interface;
  - a third analog switch operatively connecting the first terminal of the first analog switch either to said telephone line interface or to said radio frequency interface; and
  - a fourth analog switch for selectively operatively connecting said satellite system to said telephone line interface.

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- A system for transmitting digital signals over a telephone landline or a wireless communication system and for transmitting analog signals over the telephone landline or the wireless communication system, comprising:
- a telephone line interface;
  - an interface for operatively connecting to a wireless communication device;
  - a digital communications path for transmitting over the telephone landline or the



wireless communication system;  
an analog communications path for transmitting over the telephone landline or the  
wireless communication system;  
a first switch for operatively connecting a first terminal either to said analog  
communications path or to said digital communications path;  
a second switch for operatively connecting said telephone line interface and said  
wireless communication device interface; and  
a third switch for operatively connecting the first terminal of the first switch with  
said telephone line interface .

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A system for transmitting digital signals over a telephone landline, a wireless radio  
frequency network or a wireless telephone system and for transmitting analog  
signals over the telephone landline, the wireless radio frequency network or a  
wireless telephone system, comprising:

a digital communications path;  
a telephone line interface;  
an interface for operatively connecting to a wireless telephone;  
a radio frequency interface for connecting to a radio frequency transceiver unit;  
an analog communications path;  
a first switch for operatively connecting a first terminal either to said analog  
communications path or to said digital communications path;  
a second switch for operatively connecting said telephone line interface and said  
wireless telephone interface; and  
a third switch for operatively connecting the first terminal of the first switch with  
either said telephone line interface or said radio frequency interface .

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91.

A system for transmitting digital signals over an ordinary telephone line service, a  
radio frequency or a wireless telephone system and for transmitting analog signals  
over the telephone line service, the radio frequency or the wireless telephone  
system, comprising:  
a digital communications path;

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a telephone line interface operatively connected to said digital communications path;  
an interface for connecting to a wireless telephone unit;  
radio frequency interface for connecting to radio frequency telemetry modules or packet radios;  
an analog communications path;  
a first switch for operatively connecting a first terminal either to said analog communications path or to said digital communications path;  
a second switch for operatively connecting said telephone line interface and said wireless telephone interface;  
a third switch for operatively connecting the first terminal of the first switch either to said telephone line interface or to said radio frequency interface; and  
a fourth switch for operatively connecting a remote device to said telephone line interface .

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92.

A system for transmitting standard digital signals or fax digital signals over ordinary telephone line service, radio frequency network, satellite system or a wireless telephone system and for transmitting analog signals over the telephone line service, the radio frequency network, the satellite system and the wireless telephone system, comprising:

a digital communications path;  
a telephone line interface;  
an interface for connecting said microcontroller to a wireless telephone unit;  
a radio frequency interface for connecting said microcontroller to a radio frequency telemetry module or packet radio unit;  
an analog communications path;  
a first switch for operatively connecting a first terminal either to said analog communications path or to said digital communications path;  
a second switch for operatively connecting said telephone line interface and said wireless telephone interface;  
a third switch for operatively connecting the first terminal of the first switch either to said telephone line interface or to said radio frequency interface; and

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a fourth switch for operatively connecting said satellite system to said telephone line interface .

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93.

A system for transmitting digital signals over a telephone landline or a wireless communication system and for transmitting analog signals over the telephone landline or the wireless communication system, comprising:

a digital communications path;

a telephone line interface;

an interface for operatively connecting to a wireless communication device;

an analog communications path;

a first switch for operatively connecting a first terminal to either said analog communications path or said digital communications path;

a second switch operatively connecting said telephone line interface and said wireless communication device interface; and

a third switch operatively connecting the first terminal of the first switch with said telephone line interface.

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94.

A system for transmitting digital signals over a telephone landline, a wireless radio frequency network or a wireless telephone system and for transmitting analog signals over the telephone landline, the wireless radio frequency network or the wireless telephone system, comprising:

a digital communications path;

a telephone line interface;

an interface for operatively connecting to a wireless telephone;

a radio frequency interface for connecting to a radio frequency transceiver unit;

an analog communications path; and

a plurality of switches connected in at least a two level tree for selectively

connecting said analog communications path or said digital communications path to said telephone line interface or to said wireless telephone interface or to said radio frequency interface.

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A system according to Claim 94 wherein the plurality of switches comprises at least three switches.

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96.

A system for transmitting digital signals over a telephone line service, a radio frequency or a wireless telephone system and for transmitting analog signals over the telephone line service, the radio frequency or the wireless telephone system, comprising:

a digital communications path;

a telephone line interface operatively connected to said digital communications path;

an interface for connecting to a wireless telephone unit;

radio frequency interface for connecting to radio frequency telemetry modules or packet radios;

an analog communications path; and

a plurality of switches connected in at least a two level tree for selectively

connecting said analog communications path or said digital communications path to said telephone line interface or said wireless telephone interface or to said radio frequency interface or for connecting a remote device to said telephone line interface.

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A system according to Claim 96 wherein the plurality of switches comprises at least four switches.

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A system for transmitting standard digital signals or fax digital signals over a telephone line service, radio frequency network, satellite system or a wireless telephone system and for transmitting analog signals over the telephone line service, the radio frequency network, the satellite system and the wireless telephone system, comprising:

a digital communications path;

a telephone line interface operatively connected to said digital communications path;

an interface for connecting to a wireless telephone unit;

a radio frequency interface for connecting to a radio frequency telemetry module or

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packet radio unit;  
an analog communications path over the telephone line, the wireless radio frequency network, the satellite system or the wireless telephone system;  
a plurality of switches connected in at least a two level tree for selectively connecting said analog communications path or said digital communications path to said telephone line interface or said wireless telephone interface or to said radio frequency interface or for connecting the satellite system to said telephone line interface.

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99. A system according to Claim 98 wherein the plurality of switches comprises at least four switches.

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100. A system for transmitting data signals over a telephone landline or a wireless communication system or for transmitting voice signals over a telephone landline or a wireless communication system, comprising in combination:  
an interface for operatively connecting to a telephone landline;  
an interface for operatively connecting to a wireless communication system;  
a modem for transmitting over the telephone landline or the wireless communication system;  
voice circuitry for transmitting over the telephone landline or the wireless communication system; and  
switching circuitry for coupling either the modem or the voice circuitry to either the telephone landline interface or the wireless communication system interface.

68.  
101. A system for transmitting data signals over a telephone landline or a satellite system or for transmitting voice signals over a telephone landline or a satellite system, comprising in combination:  
an interface for operatively connecting to a telephone landline;  
an interface for operatively connecting to a satellite system;  
a modem for transmitting over the telephone landline or the satellite system;  
voice circuitry for transmitting over the telephone landline or the satellite system;

and  
switching circuitry for coupling either the modem or the voice circuitry to either the  
telephone landline interface or the satellite system interface.

69.  
102. A system for transmitting data signals over a telephone landline or an infrared  
system or for transmitting voice signals over a telephone landline or an infrared  
system, comprising in combination:

an interface for operatively connecting to a telephone landline;

an interface for operatively connecting to an infrared system;

a modem for transmitting over the telephone landline or the infrared system;

voice circuitry for transmitting over the telephone landline or the infrared system;

and

switching circuitry for coupling either the modem or the voice circuitry to either the  
telephone landline interface or the infrared system interface.

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103. A system for transmitting data signals over a satellite system or a wireless  
communication system or for transmitting voice signals over a satellite system or a  
wireless communication system, comprising in combination:

an interface for operatively connecting to a satellite system;

an interface for operatively connecting to a wireless communication system;

a modem for transmitting over the satellite system or the wireless communication  
system;

voice circuitry for transmitting over the satellite system or the wireless  
communication system; and

switching circuitry for coupling either the modem or the voice circuitry to either the  
satellite system interface or the wireless communication system interface.

71.  
104. A system for transmitting data signals over an infrared system or a wireless  
communication system or for transmitting voice signals over an infrared system or a  
wireless communication system, comprising in combination:

an interface for operatively connecting to an infrared system;

an interface for operatively connecting to a wireless communication system;  
a modem for transmitting over the infrared system or the wireless communication system;  
voice circuitry for transmitting over the infrared system or the wireless communication system; and  
switching circuitry for coupling either the modem or the voice circuitry to either the infrared system interface or the wireless communication system interface.

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A system for transmitting data signals over an infrared system or a satellite system or for transmitting voice signals over an infrared system or a satellite system, comprising in combination:  
an interface for operatively connecting to an infrared system;  
an interface for operatively connecting to a satellite system;  
a modem for transmitting over the infrared system or the satellite system;  
voice circuitry for transmitting over the infrared system or the satellite system; and  
switching circuitry for coupling either the modem or the voice circuitry to either the infrared system interface or the satellite system interface.

13.  
106.

A system for transmitting data signals over a telephone landline or a wireless communication system or an infrared system or for transmitting voice signals over a telephone landline or a wireless communication system or an infrared system, comprising in combination:  
an interface for operatively connecting to a telephone landline;  
an interface for operatively connecting to a wireless communication system;  
an interface for operatively connecting to an infrared system;  
a modem for transmitting over the telephone landline or the wireless communication system or the infrared system;  
voice circuitry for transmitting over the telephone landline or the wireless communication system or the infrared system; and  
switching circuitry for coupling either the modem or the voice circuitry to the telephone landline interface or to the wireless communication system

interface or to the infrared system interface.

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107.

A system for transmitting data signals over a telephone landline or a wireless communication system or a satellite system or for transmitting voice signals over a telephone landline or a wireless communication system or a satellite system, comprising in combination:

an interface for operatively connecting to a telephone landline;

an interface for operatively connecting to a wireless communication system;

an interface for operatively connecting to a satellite system;

a modem for transmitting over the telephone landline or the wireless communication system or the satellite system;

voice circuitry for transmitting over the telephone landline or the wireless communication system or the satellite system; and

switching circuitry for coupling either the modem or the voice circuitry to the telephone landline interface or to the wireless communication system interface or to the satellite system interface.

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108.

A system for transmitting data signals over a telephone landline or an infrared system or a satellite system or for transmitting voice signals over a telephone landline or an infrared system or a satellite system, comprising in combination:

an interface for operatively connecting to a telephone landline;

an interface for operatively connecting to an infrared system;

an interface for operatively connecting to a satellite system;

a modem for transmitting over the telephone landline or the infrared system or the satellite system;

voice circuitry for transmitting over the telephone landline or the infrared system or the satellite system; and

switching circuitry for coupling either the modem or the voice circuitry to the telephone landline interface or to the infrared system interface or to the satellite system interface.

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